

Very High-range waterproof gamma detector**AMP-300 Area Monitoring Probe**

1 mSv/h to 300 Sv/h (0.1 R/h to 30,000 R/h).

Radiation Detection Division**Health Physics**

The AMP-300, or Area Monitor Probe, is a dose rate meter. It has been designed specifically to be used in extremely high dose rate fields.

The AMP-300's detector features linear response from 1 mSv/h to 300 Sv/h (0.1 R/h to 30,000 R/h).

More importantly, since the probe's sensitive electronics are located far from the high field (25 to 350 feet away), they are not subject to destructive gamma exposure. Thus the probe head may be located near a filter cube, rad waste stream, resin tank, or even inside the fuel pool (to take advantage of waterproof characteristics) having a long life expectancy.

The AMP-300 may be used in one of 2 ways: By locally reading the smoothed digital display via the hand-held meter or by connecting the meter to a Remote Monitoring System like WebiSmarts.

**Features**

Wide range response from 1 mSv/h to 300 Sv/h (0.1 R/h to 30,000 R/h)

Ruggedized construction, waterproof detector housing and cable

Quick-connect connectors allow customization of cable length and facilitate easy decontamination

Built-in communication connection for use with Area Monitor or WRM transmitter

“Smoothed” digital display offers accurate, stable readings

User-selectable internal alarm threshold

Applications

Real-time monitor applications. For example, the probe head may be placed directly into a filter cube or against a resin tank for the purpose of providing survey

Results

Replacement of traditionally “difficult to calibrate” underwater instruments

Local readout of hand-held meter allows for use as a portable survey instrument

Provides real-time, remote monitoring in geometries developed for extendable meters like our TelePole II and others.

Technical Data

Display	LCD readout showing: <ul style="list-style-type: none">- Four digits for accurate and- Detector failure- Low battery- Overflow- Threshold
Audio	Internally mounted piezo-electric element used for "chirp" and alarm functions
Measuring range	1 mSv/h to 300 Sv/h (0.1 R/h to 30,000 R/h)
Display range	1 mSv/h to 300 Sv/h (0.1 R/h to 30,000 R/h)
Controls	<ul style="list-style-type: none">- ON/OFF push-button- RESET push-button- SPEAKER push-button
Power Source	One 9-volt cell battery or external 9V power supply Providing 50 hours minimum continuous operation and automatic battery check under full load
Detector	Silicon Diode
Sensitivity (137Cs)	8.33 cps/R/h
Accuracy	±10% of reading within the measuring range
Energy range	70 keV to 2.0 MeV
Energy dependence	±20% related to 137Cs
Angular dependence	Less than ±20% for 45° from centerline indicator
Temperature range	Operation: -10°C to +50°C (15°F to 122°F) Storage: -20°C to +60°C (-5°F to 140°F)
Humidity range	40% to 95% RH (non condensing)
Casing	Meter: Aluminum Detector: Aluminum, waterproof to 20 meters
Dimensions	Meter: 12 cm x 7.2 cm x 3.4 cm (4.72" x 2.83" x 1.34") Detector: 2.45 cm x 14.3 cm (0.96" x 5.71") without cable
Weight	Meter: 340 g (0.76 lbs) including battery Detector: 131 g (0.29 lbs) without cable
Cable length	Standard: 25 feet Maximum: 350 feet
Part #	AMP-300 (Sv/h) (incl. 9m cable) BAK-4460 AMP-300 (R/h) (incl. 9m cable) BAK-4490

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